STEPANENKO, B.N.; KRYUKOVA, G.K.

Technique of β-phenyl β-glucoside synthesis. Doklady Akad. Nauk S.S.S.R. 86, 333-5 '52. (MLRA 5:9)
(CA 47 no.22:12262 '53)

(4) Chem.

Syntheses of some halogen-substituted phenol β-D-glucosides. B. N. Stepanenko and G. K. Kryukova. *Doklady Akad. Nauk S.S.S.R.* 89, 885–8(1953); cf. Fischer and Bruuns, *C.A.* 7, 87.—Heating 3.0 g. pentaacetylglucose, 5.2 g. 2,4,6-$I_3C_6H_2OH$, and 0.2 g. p-$MeC_6H_4SO_3H$ in 50 ml. C_6H_6 3 hrs. with stirring, washing the product with H_2O, and evapg. the org. layer gave 23% *2,4,6-triiodophenyl β-D-glucoside tetraacetate* (I), needles, m. 153–4° (from EtOH), $[\alpha]_D^{18}$ −8.8° (C_6H_6). The glucoside reduces Fehling soln. in cold and in hot soln., and the reduction is more energetic after preliminary hydrolysis with 10% HCl. A similar reaction with 2,4,6-tribromoresorcinol, m. 111°, gave a noncrystg. sirup of partly deacetylated glucoside which with Ac_2O-NaOAc yielded 20% *2,4,6-tribromo-3-hydroxyphenyl β-D-glucoside pentaacetate* (II), needles, m. 108° (from EtOH), $[\alpha]_D^{18}$ −9.2° (C_6H_6); it reduces Fehling soln. on heating and the reduction is more energetic after preliminary hydrolysis with 10% HCl. Similarly was obtained 27.3% *p-chlorophenyl β-D-glucoside tetraacetate* (III), needles, m. 124–5° (from EtOH), $[\alpha]_D^{18}$ −31.1° (C_6H_6); it reduces Fehling soln. after preliminary acidic hydrolysis. I and II on attempted hydrolysis with MeONa under all conditions that were tried suffered cleavage of the glucoside link and gave the aglycon, instead of effecting the desired cleavage of the AcO groups; $Ba(OH)_2$, NH_4OH, and $PhNH_2$ gave similar results. III was best hydrolyzed as follows: to 0.5 g. III in 3 ml. abs. MeOH was added 1/10 of the theoretical amt. of 0.1*N* MeONa-MeOH, and the mixt. agitated in a closed flask 0.5 hr. at room temp. and concd. *in vacuo*; the resulting *p-chlorophenyl β-D-glucoside* (71%) crystd. from MeOH in needles, m. 179–80°, $[\alpha]_D^{18}$ −87.3° (H_2O), having no reducing properties but acquiring them after hydrolysis with 10% HCl. G. M. Kosolapoff

KRYUKOVA, G. T. and CHUVAYEV, A. P.

"Some Results of Studies of Strong Cumuli," Tr. Gl. geofiz. observ., No 47, 1954, pp 11-15

Physical characteristics of strong cumuli obtained during flights during the period 1948-1952 are described. Data are tabulated showing the vertical force of clouds, altitude and temperature of the upper and lower boundaries, force of the overcooled parts of the clouds, and the mean humidity. The concentration of drops was found to increase up to 1,500 m and stay constant thereafter.

RZhFiz, No 3, 1955

KUZ'MIN, A.A.; KRYUKOVA, G.V.

Low-frequency selective transistor amplifier. Izv. TPI 105:173-176 '60. (MIRA 16:8)

1. Predstavleno nauchnym seminarom radiotekhnicheskogo fakul'teta Tomskogo ordena Trudovogo Krasnogo Znameni politekhnicheskogo instituta imeni Kirova.

(Transistor amplifiers)

SHESTAKOV, M.F.; KRYUKOVA, I.A., red.; SVESHNIKOV, A.A., tekhn.red.

[Bibliography on the designing of radio transmitters for courses of study and work toward a diploma] Spravochnik literatury dlia kursovogo i diplomnogo proektirovaniia radioperedaiushchikh ustroistv. Moskva, Izd-vo "Sovetskoe radio," 1956. 27 p. (MIRA 11:2)
(Bibliography--Radio--Transmitters and transmission)

KRYUKOVA, I. N.

"The Nature and Histogenesis of the Principle Layer of the Tympanic Membrane in Mammals," Dokl. Ak. Nauk SSSR, 81, No. 4, 481-84 1951

Inst. Animal Morphology im. A. N. Severtsov

K. I. ...

..., I. . -- "Growth and Reproduction of the ... in Mermals." Sub 7 Mar 52, ... of Leningrad ... M. V. Lomonosov. (Dissertation for the Degree of ... Biological Sciences).

SO: Vsesoyuznaya Meditsina January-December 1952

TRANS - W 29782, 12 Apr 54

KRYUKOVA, I. N.

Regenerative processes in the tympatic membrane in higher and lower vertebrates. Doklady Akad. nauk SSSR 84 no.1:185-187 1 May 1952. (CIML 22:2)

1. Presented by Academician A. I. Abrikosov 22 February 1952.
2. Institute of Animal Morphology imeni A. N. Severtsov, Academy of Sciences USSR.

Kryukova, L.N.

ZILBER, L.A.; KRYUKOVA, L.N.

Haemorrhagic disease of rats due to the virus of chick sarcoma. Acta virol. Engl. Ed. Praha 1 no.3-4:156-160 July-Dec 57.

1. N. F. Gamaleya Institute of Epidemiology and Microbiology, Academy of Medical Sciences, Moscow, U.S.S.R.
(VIRUS DISEASES, exper.
chick sarcoma virus inducing hemorrh. dis. in rats)
(HEMORRHAGE, exper.
same)

KRYUKOVA, I.N.

ZIL'BER, L.A.; KRYUKOVA, I.N.

Hemorrhagic disease in rats caused by chicken sarcoma virus [with summary in English]. Vop.virus. 2 no.4:239-243 Jl-Ag '57. (MIRA 10:12)

1. Institut epidemiologii i mikrobiologii imeni N.F.Gamaleya AMN SSSR, Moskva.

(HEMORRHAGIC DIATHESIS, experimental,
hemorrh. dis. in rats caused by infect. with Rous sarcoma virus during embryonic stage (Rus))
(SARCOMA, experimental,
Rous sarcoma virus infect. of rat embryo causing postnatal hemorrh. dis. (Rus))
(NEOPLASMS, experimental,
same)

KRYUKOVA, I.N.

Acquired immunity to heterogenic serum in rats [with summary in English]. Biul.eksp.biol. i med. 43 no.4:78-79 Ap '57. (MIRA 10:10)

1. Iz otdela immunologii i zlokachestvennykh opukholey (zav. - deystvitel'nyy chlen AMN SSSR L.A.Zil'ber) Instituta epidemiologii i mikrobiologii imeni N.A.Gamaleya AMN SSSR, Moskva. Predstavlena deystvitel'nym chlenom AMN SSSR prof. L.A.Zil'berom)
(IMMUNITY
prod. in adult rats to horse serum by inject. to rat embryos)

KEYUKOVA, I.N. (Moskva)

Actively acquired tolerance to heterogenous antigens. Usp.sovr. biol. 44 no.1:127-141 Jl-Ag '57. (MIRA 10:10)
(ANTIGENS AND ANTIBODIES)

USSR/General Problems of Pathology - Tumors. Filtrable Factors. U

Abs Jour : Ref Zhur Biol., No 6, 1959, 27350

Author : Zil'ber, L.A., Kryukova, I.N.
Inst : -
Title : Fibromatosis of Rabbits, Induced by Rous Virus

Orig Pub : Vopr. virusologii, 1958, No 3, 166-170

Abstract : To one-day-old rabbits, 4 times every other day, 1 ml each of a suspension of Rous sarcoma (RS) was introduced. After 3 weeks, multiple solid nodes appeared under the skin which consisted of fibrous tissue with a great amount of cells. A number of animals perished; all rabbits were behind in growth. In those which survived, the nodes gradually sclerosed and some resorpted. In 1 rabbit, fibrous nodes (FN) were discovered in the liver. Introduction of FN suspension into the muscle of chickens did not induce sarcoma but lymphoid proliferations. Aqueo-saline extracts of FN reacted in CFR with the serum

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USSR/General Problems of Pathology - Tumors. Filtrable Factors. U

Abs Jour : Ref Zhur Biol., No 6, 1959, 27350

of rats tolerant to normal chicken muscle and immunized with RS, and with serum of rabbits immune to RS. Introduction of RS suspension to adult rabbits did not induce fibromatosis. -- O.S. Frankfurt

Card 2/2

ZIL'BER, L.A., KRYUKOVA, I.M., MARTSISSOV, N.V., BIRYULINA, T.I.

Serological differentiation of Rous sarcoma and normal tissue extracts [with summary in English]. Vop.onk.4 no.3:268-270 '58 (MIRA 11:8)

1. Iz Instituta epidemiologii i mikrobiologii im. Gamaleya AMN SSSR. Adres avtorat Moskva, 182, Shchukinskaya ul., d. 83, Institut epidemiologii i mikrobiologii im. Gamaleya.
(SARCOMA, exper.
Rous sarcoma extract, serol. differentiation with normal tissue extract (Rus))

KRYUKOVA, I.N.

Further observations on hemorrhagic disease of rats causec by the Rous virus. Vop.virus. 4 no.4:486-490 Jl-Ag '59. (MIRA 12:12)

1. Otdel immunologii i onkologii Instituta epidemiologii i mikrobiologii imeni N.F. Gamalei AMN SSSR, Moskva.
(SARCOMA, experimental)

KRYUKOVA, I.N.; LEZHNEVA, O.M.

Cultivation of Rous sarcoma and Shope papilloma viruses in Ehrlich ascites tumor and in M-1 rat sarcoma. Vop.onk. 5 no.7:3-5 '59. (MIRA 12:12)

1. Iz otdela immunologii i onkologii (zav. - deystvitel'nyy chlen AMN SSSR prof. L.A. Zil'ber) Instituta epidemiologii i mikrobiologii im. N.F. Gamaleya AMN SSSR (dir. - prof. S.N. Muromtsev). Adres avtorov: Moskva, D-18a, Shchukinskaya ul., d.33, Institut epidemiologii i mikrobiologii im. Gamaleya AMN SSSR.

(PAPILLOMA - virology)
(SARCOMA - virology)
(NEOPLASMS - experimental)

KRYUKOVA, I.N.

Observations on hemorrhagic disease in rats caused by Rous' sarcoma virus. Vop.virus. 6 no.5:602-611 S-O '60. (MIRA 14:7)

1. Otdel immunologii i onkologii Instituta imeni N.F.Gamalei AMN SSSR, Moskva.
(HEMORRHAGIC DISEASES) (TUMORS)

KRYUKOVA, I.N.

Attempt to demask Rous virus in mammal tissues. Vop.virus. 7 no.3: 313-317 My-Je '61. (MIRA 14:7)

1. Institut epidemiologii i mikrobiologii imeni N.F.Gamalei AMN SSSR, Moskva.
(TUMOR) (VIRUSES)

KRYUKOVA, I.N.

Further observations on rabbit fibromatosis induced by Rous virus.
Vop.virus. 7 no.3:317-321 My-Je '61. (MIRA 14:7)

1. Otdel immunologii i onkologii Instituta epidemiologii i mikrobiologii imeni N.F.Gamalei AMN SSSR, Moskva.
(TUMORS) (VIRUSES)

MARTSISSOV, N.V.; BIRYULINA, T.I.; KRYUKOVA, I.N.

Complement fixation reaction in fibromatosis produced in rabbits with Rous sarcoma virus. Vop. virus. 7 no.3:292-295 My-Je '62. (MIRA 16:8)

1. Otdel immunologii i onkologii Instituta epidemiologii i mikrobiologii imeni N.F.Gamalei AMN SSSR, Moskva.
(CANCER) (VIRUSES) (COMPLEMENT FIXATION)

MARTSISSOV, N.V.; BIKYULINA, T.I.; KRYUKOVA, I.N.; MORGUNOVA, T.D.

Complement fixation reaction in hemorrhagic disease in rats caused by Rous sarcoma. Vop. virus. 7 no.3:295-302 My-Je '62 (MIRA 16:8)

1. Otdel immunologii i onkologii Instituta epidemiologii i mikrobiologii imeni N.F.Gamalei AMN SSSR, Moskva.
(CANCER) (VIRUSES) (COMPLEMENT FIXATION)

MORGUNOVA, T.D.; KAYUKOVA, I.N.

Mouse sarcomas induced by the Rous virus. Vop. virus. 7 no.3:367-370 My-Je '62. (MIRA 16:8)

1. Otdel immunologii i onkologii Instituta epidemiologii i mikrobiologii imeni N.F.Gamalei AMN SSSR, Moskva.
(CANCER) (VIRUSES)

KRYUKOVA, I.N. (Moskva, G-242, ul. Chaykovskogo, d.25, korp.1,kv.18);
OBUKH, I.B. (Moskva, G-117, 2-y Truzhenikov pereulok, d.4, kv.39)

Distribution of the infectious virus and viral antigen in the body of rats and mice infected with Rous virus. Vop. onk. 10 no.3:3-8 '64. (MIRA 17:8)

1. Institut epidemiologii i mikrobiologii imeni N.F. Gamalei AMN SSSR.

KRUKOVA, I.N. (Moskva, G-242, ul. Chaykovskogo, d.25, korp. I, kv.18); OBUKH, I.B. (Moskva, G-117, II Truzhenikov pereulok, d.4, kv.39)

Distribution of viral antigens in internal organs and fibrous nodes of rabbits infected with Rous' viruses. Vop onk. 10 no.8:60-64 '64. (MIRA 18:3)

1. Iz Instituta immunologii, epidemiologii i mikrobiologii imeni Gamalei, AMN SSSR.

ACCESSION NR: AP4011786 S/0181/64/006/001/0329/0331

AUTHORS: Kryukova, I. V.; Vavilov, V. S.

TITLE: Orientation dependence of the formation of radiation defects in n-type silicon

SOURCE: Fizika tverdogo tela, v. 6, no. 1, 1964, 329-331

TOPIC TAGS: radiation defect, n type silicon, electron bombardment, combination center, minority carrier, p-n junction, minority carrier lifetime, electron flux, capture cross section, thermal velocity, carrier velocity

ABSTRACT: Determination of orientation dependence is difficult because of the necessity of working with very thin samples (10-20 microns) and avoiding loss of initial direction of incident particles by scattering on atoms of the test material. The authors used a different method, proposed by V. S. Vavilov, V. M. Patskevich, B. Ya. Yurkov, and P. L. Glazunov (FTT, 2, 1431, 1960), which yields data on orientation dependence by measuring dependence of resistivity changes on depth of electron penetration. A single crystal of n-type Si was used. Defects introduced by radiation were recorded by measuring the lifetime (τ) of minority carriers dur-

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ACCESSION NR: AP4011786

ing bombardment. To record changes in this lifetime, the authors measured the short-circuited current (I_{sc}) in the circuit of a crystal with a p-n junction during bombardment by a stream of electrons. The number of combination centers introduced by radiation in small doses is equal to the product of electron flux (ϕ) and the rate of defect production (γ) (by γ is meant the ratio of number of defects per cu cm to the electron flux per sq cm). The relationship among these values is then

$$\Delta\left(\frac{1}{\tau_{s.s.}}\right)\sim\Delta\left(\frac{1}{\tau}\right)=\gamma\Phi\sigma v f(E_t-E_f),$$

where σ is the capture cross section of carriers by the given center, V is the thermal velocity of the carriers, and $f(E_t-E_f)$ is the function of level filling. Bombardment by electrons of 1 Mev was carried out at room temperature. The relationship between electron flux and change in short-circuited current (proportional to lifetime of carriers) for various directions of bombardment is shown in Fig. 1 of the Enclosure. The observed orientation dependence is associated with the presence of interstitial positions in a loose lattice of the diamond type. "The authors thank S. I. Vintovkin for his aid in bombarding the samples." Orig. art. has: 1 figure.

Card 2/3

ACCESSION NR: AP4011786

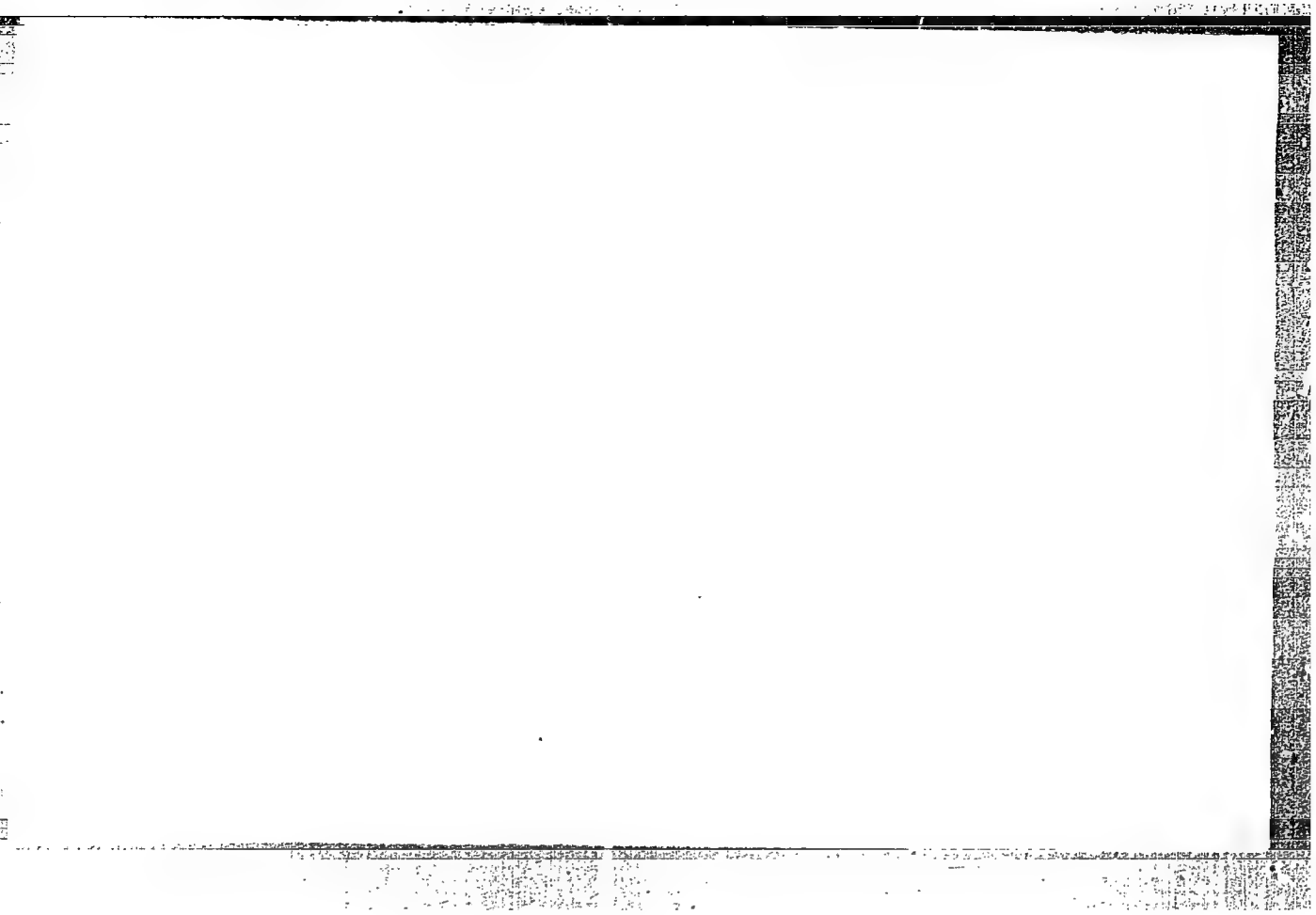
ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University)

SUBMITTED: 05Sep63 DATE ACQ: 14Feb64 ENCL: 01

SUB CODE: PH NO REF SOV: 002 OTHER: 003

Card 3/4 3

AUTHOR: Vavilov, V. S.; Kryukova, I. V.; Chuktchev, M. V.



APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000826920005-9"

L 9462-66 FBD/EWT(l)/EWT(m)/EEC(k)-2/T/EWP(k)/EWA(h)/EWP(b)/EWA(m)-2/EWP(t)
ACC NR: AP5027431SCTB/IJP(c) WG/JD SOURCE CODE: UR/0181/65/007/011/3421/3422

AUTHOR: Kryukova, I. V.; Karnaukhov, V. G.; Paduchikh, L. I.

ORG: none

TITLE: Stimulated emission from diffused gallium antimonide p-n junctions

SOURCE: Fizika tverdogo tela, v. 7, no. 11, 1965, 3421-3422

TOPIC TAGS: gallium antimonide, pn junction, stimulated emission, laser, semiconductor laser, junction laser

ABSTRACT: Stimulated emission was obtained at liquid nitrogen temperature in diffused GaSb p-n junctions. The diodes were fabricated by diffusing zinc from the gas phase into n-type wafers of GaSb grown by the Czochralski method. The Fabry-Perot cavity of the 0.4 x 0.4 x 0.4 mm diode was formed by cleaving. Carrier concentration and mobility of the samples were 2.9×10^{17} cm^{-3} and 3200 cm^2/v·sec, respectively. The spectrum of recombination radiation at various current densities (j) is shown in Fig. 1. Fig. 2 shows the narrowing observed at the threshold for the onset of stimulated emission at $j = 3—5 \times 10^4$ amp/cm^2. The maximum narrowing of the line (half-width of 0.006 ev) was achieved at $j = 5.4 \times 10^4$ amp/cm^2 and was limited by the width

Card 1/3

L 9462-66
ACC NR: AP5027431

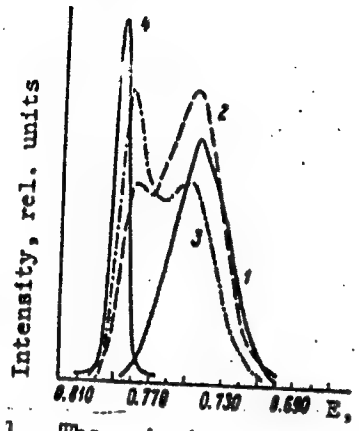


Fig. 1. The emission spectrum of Ga at 77K for the following current densities:

1 - 1.0 x 10^4; 2 - 2.2 x 10^4;
3 - 1.8 x 10^4; 4 - 4.5 x 10^4 amp/cm^2
(E_{max} = 0.790 ev).

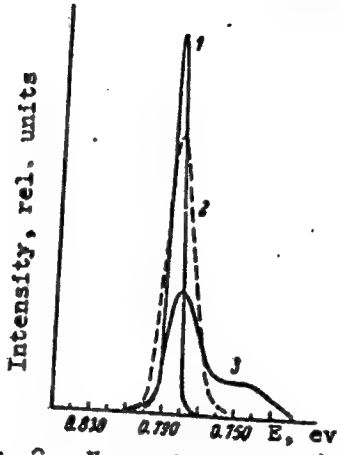


Fig. 2. Narrowing of the spectral line at the onset of stimulated emission at 77K and at the current densities of:

1 - 5.4 x 10^4; 2 - 3.1 x 10^4;
3 - 1.0 x 10^4 amp/cm^2.

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L 9462-66

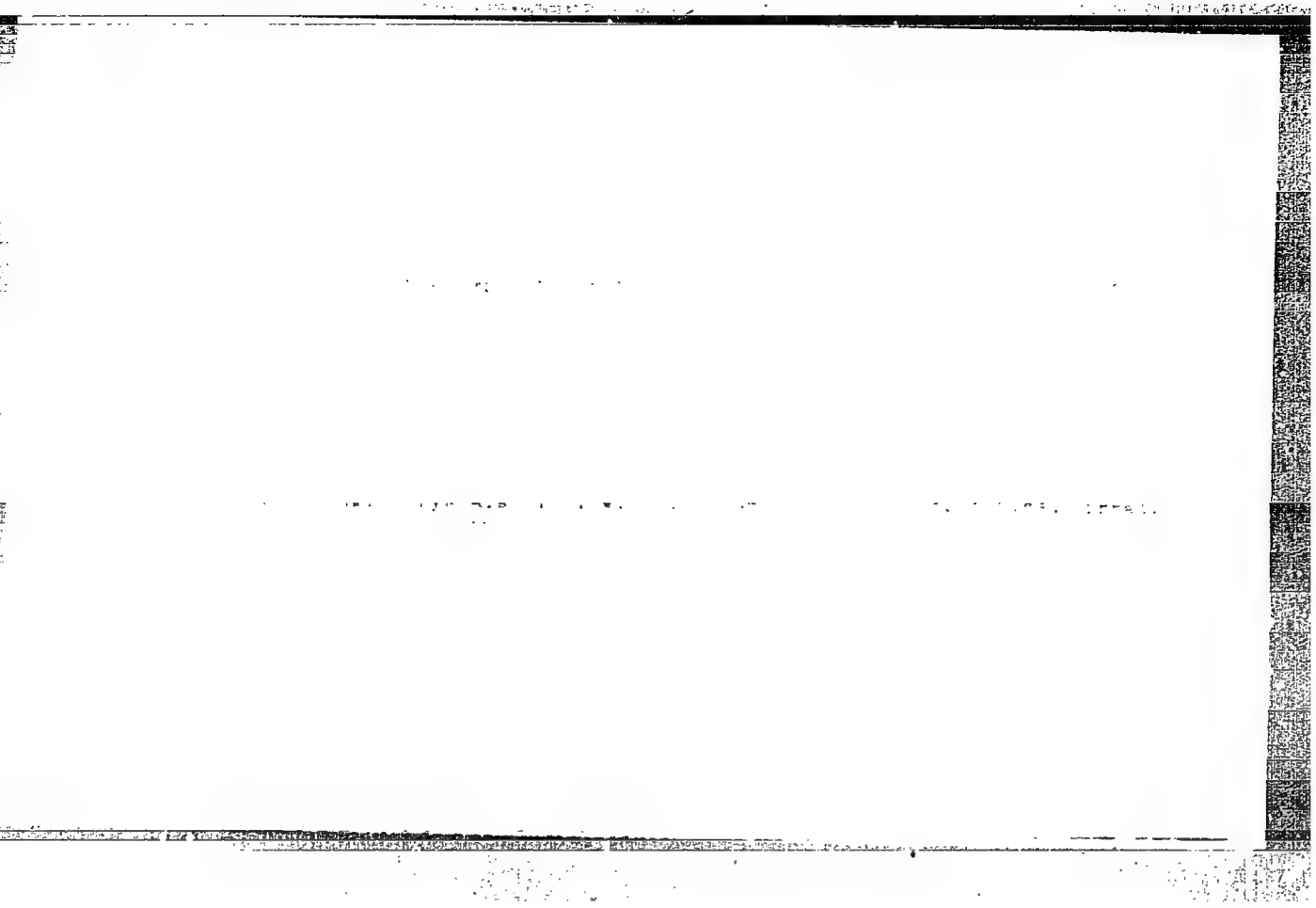
ACC NR: AP5027431

of the slit of the monochromator. The intensity of the line was not proportional to j. The laser action was attributed to interband transitions. Orig. art. has: 2 figures.

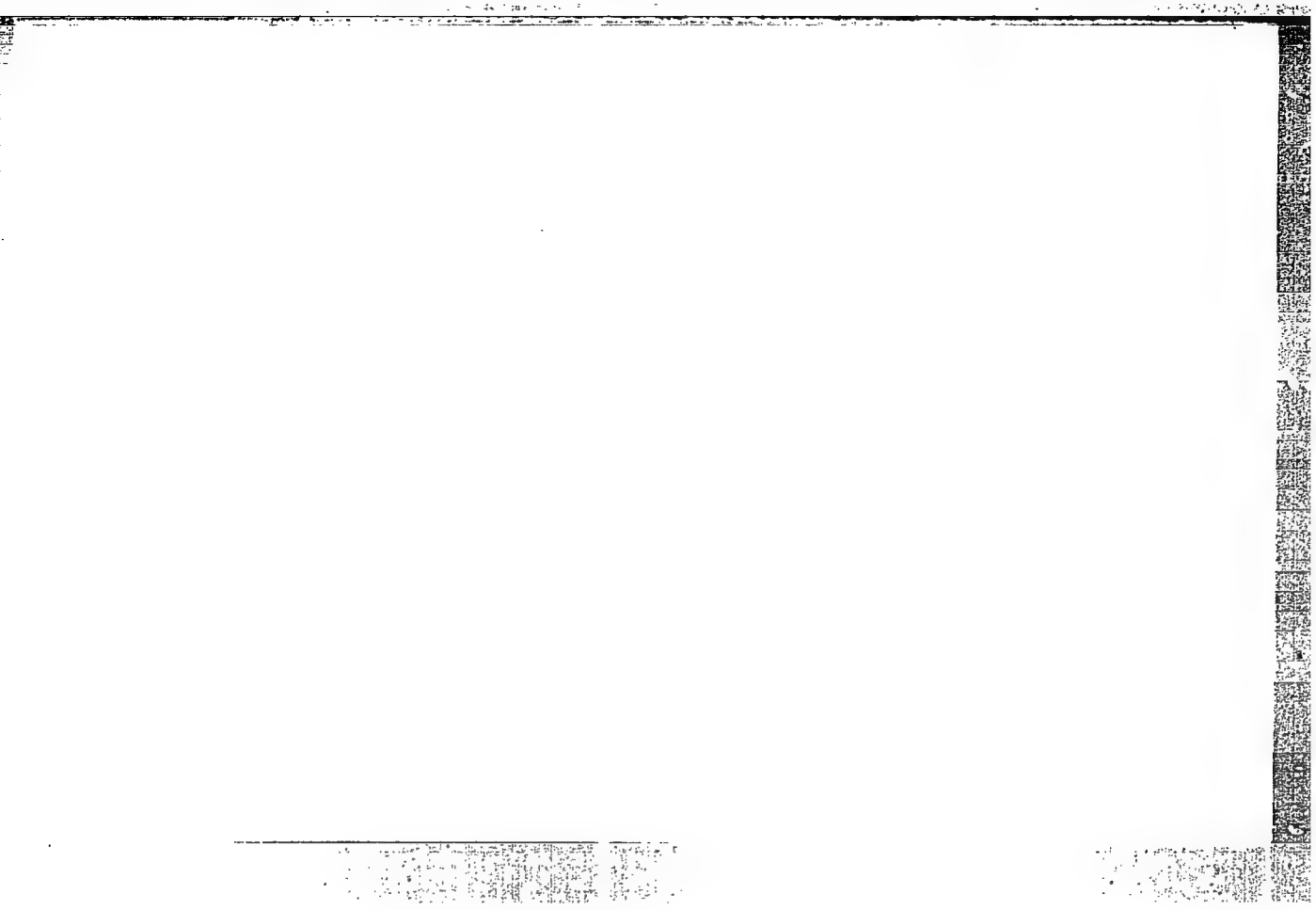
[CS]

SUB CODE: 20/ SUBM DATE: 31Mar65/ ORIG REF: 001/ OTH REF: 002/
ATD PRESS: 4155

jw
Card 3/3



APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000826920005-9"



L 26759-66 FBD/EWT(1)/EWT(m)/EEC(k)-2/T/EWP(k)/EWA(h) IJP(c) WG/JD/JG

ACC NR: AP6012457 SOURCE CODE: UR/0181/66/008/004/1028/1034

AUTHOR: Koryukova, I. V.; Mirgalovskaya, M. S.; Karnaukhov, V. G.; Baranova, A. M.; Strel'nikova, I. A.

ORG: none

TITLE: Some features of coherent emission of gallium antimonide laser diodes

SOURCE: Fizika tverdogo tela, v. 8, no. 4, 1966, 1028-1034

TOPIC TAGS: gallium antimonide, laser emission, pn junction, laser, laser diode

ABSTRACT: This is a continuation of an earlier study of laser effects in diffusion GaSb p-n junctions (FTT v. 7, 342, 1965). The present study was made with drawn p-n junctions with the aim of determining in greater detail the features of their emission and to explain why diffusion p-n junctions have a lower efficiency than drawn junctions. The junctions were produced in a crystal grown by the Czochralski method. The p-n junction plane was perpendicular to the crystallographic (111) direction and the Fabry-Perot diode structure was produced by optical polishing. The diode dimensions were 0.4 x 0.5 x 0.5 mm. The measurements were made at 77K with the radiation produced both at large current densities (pulsed mode, pulse duration 1 μsec) and at low densities (dc). At low current densities the emission spectra of the investigated p-n junctions consisted of a single broad line with a maximum noticeably shifted toward the long wave length side compared with the width of the forbidden band of GaSb (0.80 ev). At larger currents, the radiation peak shifted toward the short wave length side

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L 26759-66

ACC NR: AP6012457

3

(0.76—0.78 ev), with a maximum half-width of the spectral line of 0.5×10^{-3} ev and threshold current densities of 3×10^{3}--1.2×10^{4} amp/cm^2. Although the results indicate conclusively that a laser action was produced in these junctions, the low resolution of the apparatus did not make it possible to observe the possible oscillation modes. Reduction of the temperature (to that of liquid helium) did not produce a noticeable change in the radiation parameters. Several arguments are advanced in favor of the hypothesis that states situated in the forbidden band participate in the stimulated transitions. The dependence of the shift of the radiation peak and of the width of the spectral line at different injection levels is analyzed and it is indicated that the reason why the previously investigated diffusion p-n junction had worse laser parameters is due to the lower degree of doping attained by the diffusion process and to a different character of the impurity distribution in the two types of junctions. There is also a difference in the recombination mechanism in the two junctions. The authors thank B. M. Vul for a discussion of the results and P. G. Yeliseyev and V. I. Shveykin for useful advice. Orig. art. has: 6 figures. [02]

SUB CODE: 20/ SUBM DATE: 07Aug65/ ORIG REF: 003/ OTH REF: 013/
ATD PRESS: 4268

Card 2/2 FV

L 08354-67 EWT(m)/EWP(w)/EWP(t)/ETI IJP(c) JD

ACC NR: AR6028126 SOURCE CODE: UR/0058/66/000/005/A069/A069

AUTHOR: Goryunova, N. A.; Baranov, B. V.; Grigor'yeva, V. S.; Kradinova, L. V.; Kryukova, I. V.; Prochukhan, V. D.

TITLE: Production and investigation of GaP-GaAs and GaAs-InAs solid solutions

SOURCE: Ref. zh. Fizika, Abs. 5A557

REF. SOURCE: Sb. Simpozium. Protsessy sinteza i rosta kristallov i plenok poluprovodnik. materialov, 1965. Tezisy dokl. Novosibirsk, 1965, 7-8

TOPIC TAGS: solid solution, gallium compound, indium compound, single crystal growing, crystal impurity

ABSTRACT: The possibility is investigated of obtaining single crystals of homogeneous solid solutions in a wide range of concentrations. The crystals were grown by the gas-transport method in a closed volume. The authors elucidate the influence of such factors as the zone temperature, the temperature difference between zones, and the chemical nature of the carrier, and its concentration on the evolution of the gas-transport reactions and on the habit and dimension of the crystals are clarified. Optimal conditions are established for obtaining single crystals of the required habit. Questions involved in the doping of crystals during gas-transport reactions are studied. A. Po otikov. [Translation of Abstract]

SUB CODE: 20
Card 1/1 nst

ACC NR: AR6030494 SOURCE CODE: UR/0275/66/000/006/B014/B014

AUTHOR: Goryunova, N. A.; Baranov, B. V.; Grigor'yeva, V. S.; Kradinova, L. V.; Kryukova, I. V.; Prochukhan, V. D.

TITLE: Production and investigation of GaP--GaAs and GaAs--InAs solid solutions

SOURCE: Ref. zh. Elektronika i yeye primeneniye, Abs. 6B93

REF SOURCE: Sb. Simpozium. Protsessy sinteza i rosta kristallov i plenok poluprovodnik. materialov, 1965. Tezisy dokl. Novosibirsk, 1965, 7-8

TOPIC TAGS: single crystal growing, semiconductor crystal, solid solution

ABSTRACT: Single crystals from solid solutions of GaP--GaAs and GaAs--InAs systems were grown by the method of gas-transport reactions in a closed space. Effects of vaporization-zone temperature, crystallizer temperature, temperature difference between the cold and hot zones, geometric factors, and chemical nature were investigated. Also the problems of crystal doping in gas-transport reactions were clarified. GaP--GaAs and GaAs--InAs single crystals were produced in a wide concentration range. Optimal conditions for producing single crystals of desirable habitus were found. A possibility of doping single crystals in the gas-transport reaction was found. Some electric properties of single crystals were measured. N. G. and others. [Translation of abstract]

SUB CODE: 20

Card 1/1 UDC: 621.315.592.4:541.412

RUBTSOV, N.I.; PRIVALOVA, L.A.; KRYUKOVA, I.V.

Brief bioecologic analysis of the Crimean flora. Bot. zhur. 46 no.8:1087-1097 Ag '61. (MIRA 15:1)

1. Nikitskiy botanicheskiy sad, Krym.
(Crimea--Botany--Ecology)

L 20021-66 EWT(l)/EWT(m)/T/EWP(t)/ETI IJP(c) AT/JD/JG

ACC NR: AP6018569 SOURCE CODE: UR/0181/66/008/006/1942/1944

AUTHOR: Kryukova, I. V.; Paduchikh, L. I.; Karnaukhov, V. G. 76

ORG: none B

TITLE: Recombination radiation from gallium antimonide p-n junctions

SOURCE: Fizika tverdogo tela, v. 8, no. 6, 1966, 1942-1944

TOPIC TAGS: gallium compound, antimonide, pn junction, recombination radiation, optic transition, radiation spectrum, impurity level, conduction band

ABSTRACT: In view of the lack of unanimity on the nature of the lines observed in the recombination-radiation of gallium antimonide p-n junctions, the authors present additional data and propose a new scheme for the radiative transitions. The spectral composition of radiation was investigated as a function of the current density and the concentration of the doping impurity in the initial material. The samples used were n-type with electron densities from 8×10^{16} to 2.3×10^{18} cm^{-3}. The p-n junctions were produced by diffusion of zinc. In addition, alloyed p-n junctions were prepared from undoped p-type samples with hole density 1.5×10^{17} cm^{-3}. Radiation was applied in pulses at 77K. The radiation spectra of the diffusion junctions were strongly dependent on the degree of doping, exhibiting three intense lines at low densities and only one line at high densities. An increase in the current density shifts the line peak to lower energies. An interpretation of the spectrum is presented, wherein the short-wave peak is attributed to radiative recombination of the

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L 38680-66
ACC NR: AP6018569

injected carriers, and the long-wave peak is related to radiative transitions of the carriers from the conduction band at the impurity levels. The variation in the number of spectral lines with the impurity density is attributed to incomplete overlap of the levels of the zinc and the residual impurities. Orig. art. has: 1 figure.

SUB CODE: 20/ SUBM DATE: 07Aug65/ OTH REF: 005

Card 2/2

KRYUKOVA, I.V.

Amphicarpogenous Vicia pilosa M.B. Bot. zhur. 49 no.8:1207-1209 Ag '64. (MIRA 17:11)

1. Nikitskiy Botanicheskiy sad, Yalta.

FEDNEVA, Ye.M.; KRYUKOVA, I.V.

Thermal stability of B-trichloroborazole. Zhur. neorg. khim. 10 no.9:2115-2119 S '65. (MIRA 18:10)

KRYUKOVA, K. A.

Morozov, F. N. and Kryukova, K. A. "On the problem of the biology of Dictyocaulus vivparus", Sbornik rabot po gel'mintologii (Vsesoyuz. in-t gel'mintologii im. akad. Skryabina), Moscow, 1948, p. 131-38.

SO: U-3042, 11 March 53, (Letopis'nykh Statey, No. 10, 1949).

KRYUKOVA, K. A.

PA 59/49T80

USSR/Medicine - Veterinary Medicine Jan 49
Medicine - Epizootic Diseases

"Sodium Fluoride, a New Anthelmintic for Ascaridosis in Suklings," K. A. Kryukova, Sr Sci Collaborator, All-Union Inst of Helminthol imeni Acad K. I. Skryabin, 3 pp

"Veterinariya" No 1

Tests proved sodium fluoride is a good anthelminthic against ascaridosis. A dose of 0.1 mg (f) per kg weight decreased morbidity rate 99.6% and completely eliminated worms in 90% of the suklings. Doses of 0.15 and 0.3 mg per kg weight proved nontoxic, while [redacted]

59/49T80

USSR/Medicine - Veterinary (Contd) Jan 49
Medicine

doses of 0.6 mg per kg weight caused acute reaction for 3 days but no death.

[redacted]

59/49T80

POTEMKINA, V. A., GESELEVICH, YE., GRIGORYAN, G. A., DEMIDOV, N. V., FEOKTISTOV, P. I., KRYUKOVA, K. A., PANASYUK, D. I., TYUNOV, V. I., SHKODIN, N. YE., SVESHNIKOVA, N. M., SUDARIKOV, V. YE.

Parasites

Dissertations in helminthology, defended in 1949-1950. Trudy Gel'm. lab. no. 5, 1951.

Monthly List of Russian Accessions, Library of Congress, September 1952. Unclassified.

KRIUKOVA, K.A., Cand. Vet. Sci.

Sythetic arecoline as an antihelminthic preparation in cestodiasis in dogs. Veterinariia 30 no.4:25-26 Ap '53. (MLRA 6:4)

1. Vsesoyuznyy institut gel'mintologii imeni akademika K.I. Skryabina.

Trans #121, by L. Lubich

KRYUKOVA, K.A.; DOLGOV, N.V.

Lamblinsis in children and control measures employed in preschool institutions of Voronezh Province. Vop.okh.mat. i det. 3 no.3:78-81 My-Je '58. (MIRA 11:5)

1. Iz Voronezhskoy oblastnoy sanitarno-epidemiologicheskoy stantsii.
(VORONEZH PROVINCE--GIARDIASIS)

Акуклина

USSR/ Chemistry - Physical chemistry

Card 1/2 Pub. 147 - 23/35

Authors : Dokukina, A. F.; Koton, M. M.; Kryukova, K. N.; Mineyeva, O. K.; Paribok, V. A.

Title : Relation between structure and polymerizability of substituted styrenes

Periodical : Zhur. fiz. khim. 30/1, 190-195, Jan 1956

Abstract : Investigation was conducted to determine the polymerization process of numerous disubstituted styrene derivatives containing halogen atoms and methyl radicals in various arrangements in the benzene ring of styrene. The position 2,5- at which the maximum rate of polymerization and maximum molecular weight was observed was considered to be the most favorable position for substitutes in the styrene benzene ring. The series formed

Institution: Leningrad Polytechnic Inst. im. M. M. Kalinin

Submitted : June 27, 1955

Card 2/2 Pub. 147 - 23/35

Periodical : Zhur. fiz. khim. 30/1, 190-195, Jan 1956

Abstract : by styrene substitutes are shown in the order of their polymerization rate. The effect of substituting groups in the benzene ring of styrene on the polymerizability and other characteristics of polymers is discussed. Four USSR/USA references (1939-1955). Tables; graphs; drawing.

KRYUKOVA, K.P.

Teaching pharmaceutical organization at the pharmacy school.
Apt.delo 7 no.5:55-56 S-O '58 (MIRA 11:10)

1. Iz Arkhangel'skogo farmatsevticheskogo uchilishcha.
(PHARMACY)

ZHITNITSKIY, Z.; KRYUKOVA, L.

New books. Sots. trud 8 no.9:158-159 S '63. (MIRA 16:10)

1. Nachal'nik otdela truda i zarabotnoy platy fabriki klavishnykh instrumentov "Zarya" (for Kryukova).

KRYUKOVA L. K.

p. 2

SOV/ 30-51-6-30/45

AUTHOR: Sergiyenko, I. Z.

TITLE: The Chemistry and Metabolism of Carbohydrates in Animal and Plant Organisms (Khimiya i obmen uglevodov v zhivotnom i rastitel'nom organizmakh) Conference in Moscow (Konferentsiya v Moskve)

PERIODICAL: Vestnik Akademii nauk SSSR, 1958, Nr 6, pp. 112-114 (USSR)

ABSTRACT: This conference took place from January 28 to January 30. 1958 It was organized by the Laboratory for Physiological Chemistry of the AS USSR and was attended by about 2oo specialists, among them organochemists, biochemists, physiologists, pharmacologists, histologists and physicians who represented various scientific institutions of the AS USSR, of the Academy of Medical Sciences of the USSR, of the VASKhNIL, of a number of universities and other colleges, as well as of branch institutes from all the country. It was opened by the Director of the Laboratory for Physiological Chemistry B. N. Stepanenko. He stressed in his detailed report among other things the great theoretical interest in the investigation of the ab-

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The Chemistry and Metabolism of Carbohydrates in Animal and Plant Organisms. Conference in Moscow

solute formation of simple carbohydrates. New and great success was achieved in the field of the O- and N-glycosides. He reported on some important results of the work in laboratories. Furthermore the following reports were heard:

1) S. N. Danilov: On the reaction of the simultaneous oxidation and regeneration in a group of carbohydrates.

2) Yu. A. Zhdanov: On the use of different methods of synthesis.

3) B. N. Stepanenko, L. K. Kryukova, O. G. Serdyuk: On investigations carried out in the field of some O- and N-glycosides.

4) O. K. Orlova: On 2 new diphtheria bacilli.

5) Ye. K. Alimova: On carbohydrates in the structure of diphtheria bacilli.

6) S. A. Neyfakh and M. P. Mel'nikova: On enzymatic members.

7) V. S. Il'in: On the importance of hexokinase reaction.

The Chemistry and Metabolism of Carbohydrates in Animal and Plant Organisms. Conference in Moscow

8) N. K. Nagradova: On the properties of the effect of the dehydrase of phosphorus-glycerin aldehyde.

9) A. P. Barkhash: On the method of the conversion of glucose.

10) A. N. Petrov: On the presence of a phosphorus-less method of synthesis in the liver.

11) M. I. Prokhorova and Z. N. Tupikova: On the intensity of the carbohydrate metabolism in organs.

12) B. I. Khaykina: On the velocity of the regeneration of free and bound glycogene fractions.

13) Ye. L. Rozenfel'd: On the function of animal organisms.

14) M. G. Shubich: On the results of the histochemical investigation of the glycogene of muscular tissue.

15) R. A. Rutberg: On the importance of polysaccharides in the investigation of the blood system.

Card 3/5 16) G. Ya. Rozenberg and T. V. Polyshina: On the production, the

The Chemistry and Metabolism of Carbohydrates in Animal and Plant Organisms. Conference in Moscow

properties and characteristics of Soviet dextrin.

17) A. N. Petrova: On the problems of the pathology of carbohydrate metabolism.

18) S. M. Leytes and N. T. Smirnova: On the effect of the antidiabetic preparation BZ-55.

19) A. V. Kotel'nikova and G. D. Krechetova: On special problems of the pathology of carbohydrate metabolism.

20) B. N. Stepanenko, Ye. M. Afanas'yeva and R. A. Baksova: On the chemical nature of a new polysaccharide.

21) O. A. Pavlikova and M. V. Turkina: On conversions of saccharose in plant tissues.

22) D. I. Lisitsin, M. S. Bardinskaya, M. I. Smirnova-Ikonnikova, Yu. V. Peruanskiy, G. A. Lukovnikova and V. I. Ivanov : On carbohydrates of plant origin.

In the resolution the achievements as well as the shortcomings were mentioned. A commission for the coordination of work was founded.

Card 4/5

The Chemistry and Metabolism of Carbohydrates in Animal and Plant Organisms. Conference in Moscow

307/30-58-6-30/45

1. Carbohydrates--Biosynthesis 2. Carbohydrates--Metabolism 3. Carbohydrates --Chemical properties 4. Animals--Physiology 5. Plants--Physiology

Card 5/5

KRYUKOVA, L. M.

I-4

USSR/Plant Physiology - Heat Regime.

Abs Jour : Ref Zhur - Biol., No 5, 1958, 19986

Author : Maksimov, G.A., Kriukova, L.M.
Inst : -
Title : The Study of Heat and Mass Metabolism in Seeds of Plants when Heated in a High Frequency Electric Filed.

Orig Pub : Biofizika, 1956, 1, No 3, 201-205

Abstract : The mechanism of heat and mass metabolism in seeds of Lutescens wheat 62 and in Moscow low variety of means grown on Knop's mixture in quarts sand at the agricultural Academy imeni Timiryazev under artificial climatic conditions, and in seeds of squash and melon grown at the Vegetable Station of the Agricultural Academy imeni Timityazev was studied with the help of marked atoms. Under the influence of high frequency heat a shift of Ca^{45} and P^{32} from the deeper layers of the seed to the peripheral layers, mainly to the germ, with the shift

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USSR/Plant Physiology - Heat Regime. I-4

Abs Jour : Ref Zhur - Biol., No 5, 1958, 19986

increasing at the moisture in the seeds in increased. A conclusion that the processes of heat and mass metabolism in seeds may be directly influenced has been drawn. The work was done at the Institute of Biophysics, Academy of Sciences USSR.

1. Inst. biologicheskoy fiziki an U.S.S.R. Moska

Card 2/2

Kryukova L.M.

USSR/General Biology - Physical and Chemical Biology B-1

Abs Jour : Ref Zhur - Biol., No 3, 1958, No 9393

Author : Maksimov, G.A., Kryukova, L.M., Efimov, V.N.

Inst : Not Given

Title : Thermal Phenomena in Plant Seeds During Swelling

Orig Pub : Biofizika, 1956, 1, No 6, 538-543

Abstract : Processes of heat formation were studied during swelling of living and non-germinating seeds of wheat and squash, and also the nature of shifting of mass in the swelling process depending on timing in equash seeds containing radioactive Ca^{45}. When the grain mass of wheat and squash seed mass swells under isothermic conditions, the quantity of isolated sorption heat reaches a maximum after 7-9 hours, irrespective of the seeds' germinating power. This heating, therefore, occurs independently of respiration. Then comes a cooling off period. Seeds devoid of germination continue to cool off, while in the living seeds, after cooling off by 0.5°, the tem-

Card : 1/2

USSR/General Biology - Physical and Chemical Biology B-1

Abs Jour : Ref Zhur - Biol., No 3, 1958, No 9393

perature again markedly increases for 3.5-4 hours, which evidently is the result of an intense increase in respiration. The rise of temperature on the bud surface of a living seed stays ahead of the temperature rise of the endosperm center and even more so in its surface sheath. The temperature gradient between the bud region and surface sheath reaches 0.2°/0.6 mm and between the bud region and endosperm 0.05°/0.6 mm. In swelling of dead wheat grain the highest temperature was observed in the endosperm. A coincidence was noted between the time needed for full manifestation of heat for swelling and the time for stabilization of the direction for mass shifting to the germination region.

1. Inst. biologicheskoy fiziki akad. nauk S.S.S.R. Moskva

Card : 2/2

KUZIN, A.M.; KRIUKOVA, L.M. [Kryukova, L.M.]; SAENKO, G.N. [Sayenko, G.N.]; IAZIKOVA, V.A. [Yazykova, V.A.]

Under irradiation action forming in plants of some substances which slow down the cell division, growth and development of plants. Analele biol 14 no.1:27-31 Ja-Mr '60.

KRYUKOVA, L.M.; KUZIN, A.M.

Indirect effect of ionizing radiations on plants. Biofizika 5 no. 4:450-453 '60. (MIRA 13:12)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.
(PLANTS, EFFECT OF X RAYS ON)

KRYUKOVA, L.M.; KUZIN, A.M.

Distant effect of ionizing radiations in irradiated plants.
Fiziol. rast. 7 no.2:220-222 '60. (MIRA 14:5)

1. Institute of Biophysics, U.S.S.R Academy of Sciences, Moscow.
(Plants, Effect of radiation on)

KRYUKOVA, L.N., KOPYLOV, V.A., KUZIN, A.M., (USSR)

"Changes on Polyphenol Oxidase Activity in the Irradiated Plant and the Nature and Properties of the Metabolites Produced."

Report presented at the 5th Int'l. Biochemistry Congress, Moscow, 10-16 Aug 1961.

KRYUKOVA, L.M.

Formation of antimitotic substances in different plant species following irradiation. Radiobiologiia 1 no.1:139-140 '61.
(MIRA 14:7)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.
(PLANTS, EFFECT OF X RAYS ON)
(GROWTH (PLANTS))

KUZIN, A.M.; KRYUKOVA, L.M.

Rate and dose-dependence of the formation of antimitotic substances in irradiated leaves of Vicia faba. Radiobiolgoiia 1 no.2:293-295 '61. (MIRA 14:7)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.
(PLANTS, EFFECT OF X RAYS ON)
(GROWTH (PLANTS))

KRYUKOVA, L.K.

Mutagenic properties of metabolites developing in irradiated plants.
Radiobiologiia 1 no.2:310-311 '61. (MIRA 14:7)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.
(PLANTS--EFFECT OF X RAYS ON)
(BOTANY--VARIATION)

KRYUKOVA, L.M.; LOMAKIN, M.S.; KUZIN, A.M.

Effect of extracts from irradiated and nonirradiated Vicia faba plants on the growth of tumors and homologous normal tissues. Radiobiologiia 1 no.3:354-357 '61. (MIRA 14:10)

1. Institut biologicheskoy fiziki AN SSSR i Institut eksperimental'noy biologii AMN SSSR, Moskva.
(X RAYS—PHYSIOLOGICAL EFFECT) (CANCER)

S/205/61/001/005/003/005
D299/D304

AUTHORS: A.M. Kuzin, N.B. Gorkina, V.A. Kopylov, and L.M. Kryukova

TITLE: The nature of the metabolites which form in the irradiated leaves of plants

PERIODICAL: Radiobiologiya, v. 1, no. 5, 1961, 659 - 662

TEXT: Experiments were conducted to determine whether extracts from Vicia faba leaves inhibit cell devision only in homologous tissue or whether this inhibiting action extends to the cells of other species. An attempt was made to determine whether extracts from irradiated and non-irradiated leaves affect the cell division of Escherichia coli B. The leaves were irradiated with an РУП -1 (RUP-1) apparatus in a dose of 15 kr at an intensity of 212 r/min. Some 24 hr after irradiation, extracts were made from the leaves and were added to the meat-peptone broth in which the E. coli were cultured. The results confirmed the authors' previous observations (Ref. 6: Dokl. AN SSSR, 137, 4, 970, 1961) that substances form in the irradiated leaves of plants which strongly inhibit cell multiplication. It was found that the semiproducts of the fermentative oxidation

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The nature of the ...

of tyrosine had a similar effect on E. coli B as did the meristematic radicle cells of Vicia faba. Only the low-molecular products of tyrosine oxidation, and not the high-polymer melanines, inhibited cell division. The results conform to a hypothesis that the phenol compound metabolism is disturbed in irradiated leaves, in which there form oxidation semiproducts of a polyphenol and semiquinoid nature, responsible for disturbance of cell division. There are 5 tables and 7 references. 6 Soviet-bloc and 1 non-Soviet-bloc.

ASSOCIATION: Institut biologicheskoy fiziki AN SSSR (Institute of Biophysics, AS USSR), Moscow

SUBMITTED: May 19, 1961

Card 2/2

KRYUKOVA, L.N.; LOBAKIN, N.S.; KUZIN, A.M.

Effect of extracts obtained from irradiated plants on the growth of different normal rat tissues and the tumor tissue of Guerin's carcinoma. Radiobiologiia 1 no.5:668-669 '61. (MIRA 14:11)

1. Institut biologicheskoy fiziki AN SSSR i Institut eksperimental'noy biologii AMN SSSR, Moskva.
(CANCER) (PLANTS, EFFECT OF RADIATION ON)

21504

270000 4112 also

S/020/61/137/004/029/031
B103/B208

AUTHORS: Kuzin, A.M., Corresponding Member AS USSR, and Kryukova, L.M.

TITLE: Mutagenic action of metabolites formed in an irradiated plant

PERIODICAL: Doklady Akademii nauk SSSR, v. 137, no. 4, 1961, 970 - 971

TEXT: The authors found in previous papers (Ref. 7, Biofizika, 4, no. 3, 1959; Ref. 9, ibid. 5, no. 4, 1960; Ref. 8, Fiziol. rast., 7, no. 2, 1960) that "antimitotic" metabolites are formed in the leaves of irradiated plants, which are supposed to inhibit mitoses and to prevent cell division. Now they wanted to clarify the problem as to whether these substances also exert a mutagenic effect. Like in Ref. 8, 12 - 14 - dayold plants of horse-bean (Vicia faba) were irradiated in the RUM-3 (RUM-3) X-ray apparatus with 440 r/min. Extracts were prepared from irradiated and non-irradiated (controls) leaves, and 3 - 4 -dayold roots of V.faba were placed on these extracts for 24 hr. After fixation in ethanol with acetic acid (3 : 1), the roots were colored with acetocarmine, and the anaphases, telophases, chromosome aberrations (bridges) and micronuclei were counted in

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S/020/61/137/004/029/031
B103/B208

Mutagenic action of ...

temporary preparations. Table 1 presents the results. The authors conclude therefrom that roots dipped into an extract of non-irradiated leaves exhibit no statistically reliable deviations from the control sample. However, the roots placed on extracts of irradiated leaves, showed a statistically veliable increase of chromosome aberrations (mainly bridges). Also the number of micronuclei increased. These phenomena indicate that stable substances are formed in irradiated leaves, which exert a mutagenic effect. It is further concluded therefrom that chromosome aberrations may result from a disturbance of metabolic processes due to irradiation, without a photon directly entering into a chromosome, as was frequently assumed in Western publications. V.V. Khvostova is thanked for advice. There are 1 table and 10 references: 5 Soviet-bloc and 5 non-Soviet-bloc. The reference to the English language publication reads as follows: Ref. 4, F. Haas, E. Dudgeva et al., Genetics, 39, 453 (1954).

CHLEN-KORRESPONDENT AN USSR (for Kujumzhiyev)

ASSOCIATION: Institut biologicheskoy fiziki Akademii nauk SSSR
(Institute of Biophysics of the Academy of Sciences USSR)

KUZIN, A.M.; KASYMOV, A.; KRYUKOVA, L.M.

Mechanism of stimulating and inhibiting action of radiation on potato tubers. Radiobiologiia 4 no.1:144-149 '64. (MIRA 17:4)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.

KRYUKOVA, L.M.; KASYMOV, A.

Effect of ionizing radiation on the initial phases of growth of thermophilic rice and mung bean plants. Uzb. biol. zhur. 8 no.6:5-7 '64. (MIRA 18:3)

1. Institut biofiziki AN SSSR.

BRESLAVETS, L.P.; KRYUKOVA, L.M.; KASYMOV, A.

Changes in the organelles of plant cells induced by extracts from irradiated potato tubers. Fiziol. rast. 11 no.5:848-852 S-O '64. (MIRA 17:10)

1. Institute of Biological Physics, U.S.S.R. Academy of Sciences, Moscow.

ACCESSION NR: AP4040962 S/0020/64/156/005/1204/1206

AUTHOR: Kryukova, L. M.

TITLE: Role of radiation poisons in the disruption of irradiated plant development

SOURCE: AN SSSR. Doklady*, v. 156, no. 5, 1964, 1204-1206

TOPIC TAGS: radiation poisoning, biology, radiobiology, radioactive isotope, plant development, sunflowr development

ABSTRACT: The authors attempted to establish the course of the development of axillary buds with a local irradiation of the top of the stem after removal of the top bud. The authors hypothesized that the radiation poisons formed at the point of irradiation overflowed along the stem, causing changes in the development of the axillary buds. Tests were carried out on 52-day old Helianthus annus stems. The localized irradiation was with X-rays from an RUM-3 apparatus without filtor. The focal length was 34 cm, tube voltage was 210 kilovolts; current was 15 milliamps and overall dosage was 25 kilorads over 105 minutes. Measurement showed that, during th irradiation of the stem top for 105 minutes, the plant inside the tube could absorb 21 rads, which is 0.08%

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ACCESSION NR: AP4040962

of the overall dose of 25 kilorads. This X-ray dosage could not provoke any kind of shift in the development. The same sunflower stem was totally irradiated with a dose of 1000 rads in order to ascertain whether radiation poisons rather than the direct effects of the penetrating irradiation had a destructive effect upon the formative process. No disturbances in the formative process were observed with the exception that the irradiated plants bloomed 10 days earlier than the control ones. The authors conclude that the disruption of the formative process by local irradiation of the plant is caused by radiation poisons which were formed through local irradiation of the stem top. Orig. art. has: 3 figures.

ASSOCIATION: Institut biologicheskoy fiziki Akademii nauk SSSR (Institute of Biological Physics, Academy of Sciences, SSSR)

SUBMITTED: 16Mar64 ENCL: 00

SUB CODE: LS, CB NO REF SOV: 007 OTHER: 000

Card 2/2

PORAY-KOSHITS, B.A.; KRYUKOVA, L.M.; KVITKO, I.Ya.

Amino esters. Part 4: Intramolecular N-alkylation of amino esters, derivatives of arylacetic acids. Zhur. ob. khim. 35 no.6:1098-1104 Je '65. (MIRA 18:6)

1. Leningradskiy tekhnologicheskiy institut imeni Lensoveta.

[redacted], L.M., kand. biol. nauk (Ukraina)

Genetics at a new stage. Priroda 54 no.4:103-110 Ap '65.
(MIRA 18:5)

[redacted]; [redacted], S.I.; [redacted]
PAVLOCKIY, O.V.

Esters of aliphatic amino alcohols. Zhur. prikl. khim. 38 no.1:
159-166 Ja '65. (MIRA 18:3)

KRYUKOVA, L.M. (Moskva)

Development of anomalous metabolites in irradiated organisms.
Usp. sovr. biol. 60 no.1:62-75 Jl-Ag '65.
(MIRA 18:8)

1. Institut biofiziki AN SSSR.

L 46740-66 EWT(m)

ACC NR: AR6000469 SOURCE CODE: UR/0299/65/000/017/R036/R037

AUTHORS: Kuzin, A.; Kryukova, L.M.; Kopylov, V.; Kolomiytseva, I.; Struchkov, V.

TITLE: Some mechanisms of the effect of ionizing radiation on cell division

SOURCE: Ref. zh. Biologiya, Abs. 9R218

REF SOURCE: Sb. Vopr. biofiz. i mekhanizma deystviya ionizir. radiatsii. Kiyev, Zdorov'ya, 1964, 163-168

TOPIC TAGS: radiation biologic effect, radiation plant effect, cell physiology, PLANT GROWTH, MITOSIS

ABSTRACT: Tests on the exposure of separate sections of Vicia faba, with the remaining part of the plant carefully screened, indicate the formation of a number of metabolites under the influence of such exposure. The metabolites, called radio-inductors (RI), migrate to the unexposed parts and inhibit cell division in them. The inhibiting of mitosis is observed even after wetting the growths in extracts from exposed plants. The quantity of radio-inductors formed during a determined range of doses increases with the dosage. The authors suggest that the products of oxidation of phenol derivatives, in particular those of the oxidizing disintegration of tyrosine, may be the inhibitors of cell division. Theoretically, the products of the fermentative oxidation of tyrosine include dehydrophenylalanine, various quinones, and high-polymer melanines, some of which possess properties of free radicals and powerful oxidizers. The formation of the carbohydrates mentioned provides experimental

Card 1/2 UDC: 577.3

ACC NR: AR6000;69

corroboration for the study of products from the exposed leaves by the method of chromatography and EPR. Model tests on inhibiting mitosis after the addition of tyrosine, tyrosinase, and melanines indicate that these carbohydrates are radio-inductors. The authors suggest that the intermediate products of the oxidation of tyrosine found in a free radical state can form complexes with DNA and exclude it from the cycle of changes necessary for the beginning of mitosis. A. Aleksakhin [Translation of abstract]

SUB CODE: 06

Card 2/2

L 46152-66 EWT(1)/EWT(m)/T JK

ACC NR: AP6034079 SOURCE CODE: UR/0221/65/060/001/0062/0075

AUTHOR: Kryukova, L. M. (Moscow)

ORG: Institute of Biophysics AN SSSR (Institut biofizikii AN SSSR)

TITLE: Formation of anomalous metabolites in irradiated organisms

SOURCE: Uspekhi sovremennoy biologii, v. 60, no. 1, 1965, 62-75

TOPIC TAGS: plant metabolism, biologic metabolism, ionizing radiation, toxicology

ABSTRACT: The author surveys the literature on the formation of anomalous metabolites: radiotoxins under the influence of high doses of ionizing radiations. In the animal organism, high doses of ionizing radiation cause anomalous metabolites to be formed. Individual studies in which no formation of radiotoxins in irradiated organisms was detected are evidently explained by the fact that the authors used an insufficiently exact procedure. Plants are more resistant to ionizing radiation than animals; consequently, higher radiation doses were needed to determine various changes in plant metabolism than for animals. Observations have established the formation of radiotoxins in irradiated plants. Such anomalous metabolites not only inhibit cell division but also induce chromosome aberrations, with the appearance of bridges, fragments, and micronuclei. The nature of the anomalous metabolites is still undetermined. Some researchers maintain

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ACC NR: AT603...79

that irradiation activaties oxidative processes; others believe that the enzyme lipoxidase is activated as a result of irradiation, and the content of unsaturated compounds possessing toxic properties is increased. Radiotoxins produced in the organs and tissues of organisms irradiated by high doses of ionizing radiation induce the same changes as the direct action of radiation, but quantitatively to a lesser degree. Radiotoxins may be of great practical value in view of their pronounced antimitotic effect with comparatively minimal general toxic properties in comparison with direct irradiation. The possibility that radiotoxins may be used to inhibit the division of malignant cells is noted. Orig. art. has: 8 figures and 4 tables. [JPRS: 34,186]

SUB CODE: 06 / SUBM DATE: none / ORIG REF: 075 / OTH REF: 044

Card 2/2

KRYUKOVA, L.N.

Sinking into the soil of the crown of Medicago sativa L. in relation to its growht and development. Bot.zhur. 50 no.11:1571-1575 N '65.

(MIRA 19:1)

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(Platinum—Decay) (Spectrometry)

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Biology of shoot formation in some perennial leguminous grasses.
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(Legumes)

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(Roots (Botany)) (MIRA 11:5)

SOV/120-58-6-6/32

AUTHORS: Gnedich, A. V., Kryukova, L. N., Murav'yeva, V. V., Shumshurov, V. I.

TITLE: The Focussing of Electrons in a Spiral Spectrometer (Issledovaniye fokusirovki elektronov v spiral'nom spektrometre)

PERIODICAL: Pribory i tekhnika eksperimenta, 1958, Nr 6, pp 41-45 and 1 plate (USSR)

ABSTRACT: The spiral spectrometer has been used to study the spectra of conversion and secondary electrons (Refs.1 and 2) and also to study μ- and π-mesons (Refs.3 and 4). Theoretical calculations on spiral spectrometers have been carried out at the Moscow State University (Refs.5 and 6) and also abroad (Refs.7 to 10). However, at the present time the theory of this type of spectrometer cannot be used to calculate accurately the form and size of the electron beam and the dispersion of this instrument in various regions in the magnetic field. In this connection it is of interest to obtain some experimental data on properties of the spectrometer. A photographic

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method is described in the present paper. In a spiral spectrometer an axially symmetric transverse non-uniform magnetic field is used. The electron source is placed at the centre of the field while the recording device is at some distance from it, the distance being governed by the radius of the limiting plane trajectory. In the instrument investigated, the magnetic field was produced by cylindrical pole pieces 300 mm in diameter. The gap between the pole pieces was 82 mm. The fall-off of the field at the edges of the pole pieces was used. Fig.1 shows a graph of the dependence of the magnetic field on distance from centre as well as a plot of $1/r$. As can be seen, the field falls off more rapidly than $1/r$ over an appreciable region, which is a necessary condition for a spiral spectrometer. The successive changes in the meridional section of the electron beam were studied when the beam traverses the magnetic field of the spectrometer. To get this beam profile the set-up illustrated diagrammatically in Fig.1 was used. An X-ray film camera, 4, was placed in the path of the beam and along the radius, as shown in Fig.2. An active deposit of Th served as the source of electrons. It was deposited on a copper wire 0.1 mm dia and 14 mm long in a vertical position. Con-

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centrically with the source an aluminium screen was mounted. This screen was 30 mm dia and had a 3 x 14 mm^2 slit. This slit could be rotated without letting air into the chamber. By rotating the slit, the angle φ between the direction of exit and the X-ray camera could be varied. The results obtained are shown in Figs.3 and 6. It is concluded that in a spiral β-spectrometer there are 3 regions for the electron beam which can be used for spectrometric measurements. Fig. 9 shows conversion lines obtained with a counter, using a source 0.6 mm wide with a relative solid angle of 3.4 x 10^{-3} steradian. The relative half-width of the lines was 0.32% (F-line of ThB) and 0.37% (Ce^{144}, E = 92 KeV).

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V. S. Shpinel' is thanked for valuable advice. There are 9 figures, 1 table and 10 references; 4 of the references are Soviet, 5 are English and 1 is Italian.

ASSOCIATION: Nauchno-issledovatel'skiy institut yadernoy fiziki MGU (Scientific Research Institute for Nuclear Physics, Moscow State University)

SUBMITTED: December 30, 1957.

AUTHORS: Gnedich, A. V., Kryukova, L. M., Murav'yeva, V. V., Shpinel', V. S., Shumshurov, V. I. SOV/48-22-7-21/26

TITLE: On the Problem of Doppler Broadening of Lines of Conversion Electrons Emitted by Recoil Nuclei (K voprosu o dopplerovskom ushirenii liniy konversionnykh elektronov, ispuskayemykh yadrami otdachi)

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya fizicheskaya, 1950, Vol. 22, Nr 7, pp. 867 - 870 (USSR)

ABSTRACT: When Bi^{212} (ThC) decays by an emission of an α-particle to Tl^{208} (ThC"), this Tl nucleus exhibits a transition from an excited state with 40 keV to the ground state. The Doppler effect exhibited by these conversion lines is investigated. At first a plane source of infinite extension is investigated. The thickness of the slab exerts a considerable influence on the conversion lines. The shape of the conversion lines was investigated with a helical focusing-β-spectrometer. An active thorium deposit served as a source. The theoretical shape of the lines was computed under the assumption, that the mean life τ of the level of 40 keV is within the range $T < \tau < t$. (τ denotes the life of the excited state, and T the slowing-down period of the

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nuclei in the target). The Doppler effect leads to a broadening of the lines towards high energies. The experimentally obtained B-line well agrees with the theoretical one. This broadening of lines towards high energies was also found with Aa lines (L_{II} of the same transition, E_e = 25 keV). The authors checked whether this effect could be caused by distortions of line shape due to the apparatus. The observed broadening of the B- and Aa-conversion lines is actually caused by the Doppler effect. As a summary it is stated that the investigation of the line shape of conversion electrons (emitted from moving nuclei) permits to estimate the life τ of the corresponding levels of the nucleus. The analysis of the line shape must take into consideration the actual experimental condition and in particular the thickness of the source. The life can also be estimated by determining the reduction of intensity of the lines due to the emission of recoil nuclei from the source, if the thickness of the source is known. The analysis of the line shape of the conversion spectrum of moving nuclei is also necessary in the estimation of the relative intensities of the conversion lines. There are 5

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figures and 9 references, 4 of which are Soviet.

ASSOCIATION: Moskovskiy gos. universitet im.M.V.Lomonosova (Moscow State University imeni M.V.Lomonosov)

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21(8)

AUTHORS: Gnedich, A. V., Kryukova, L. N., Murav'yeva, V. V.

SOV/56-36-1-53/62

TITLE: On the 100 kev Transition in the Spectrum of Ce^{144} (O perekhode 100 keV v spektre Ce^{144})

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1959, Vol 36, Nr 1, p 329 (USSR)

ABSTRACT: The scheme of the Ce^{144} - Pr^{144} decay has hitherto not been determined. The conversion transitions between some levels of the nucleus Pr^{144} on various shells give very similar electron lines. This property of the conversion spectrum of Ce^{144} complicates its interpretation and raises doubts as to the existence of some transitions. The authors investigated the conversion spectrum of Ce^{144} by means of a spectral β-spectrometer having a resolving power of 0.25 %. A diagram shows the conversion line of the energy 57.7 kev. The half-width of this line is greater (0.63 %) than the other lines of this spectrum. This fact and the shape of the line prove its complexity. A graphic analysis of this line gave 2

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